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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,736	03/12/2001	David F. Bush	38-10(15493)D	8682

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ARNOLD & PORTER  
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EXAMINER

EINSMANN, JULIET CAROLINE

ART UNIT PAPER NUMBER

1634

DATE MAILED: 10/08/2002

10

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/803,736

Applicant(s)

BUSH ET AL.

Examiner

Juliet C Einsmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2002.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 18-29 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 18-29 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Requirement for Information*

1. This correspondence is written in response to applicant's correspondence filed 7/22/02, paper number 9.

***Election/Restrictions***

2. Claim 1 is withdrawn without traverse.
3. Applicant's election with traverse of particular polymorphisms in Paper No. 9 is acknowledged. The traversal is on the ground(s) that the office has not proven that an undue burden would be imposed by search and examination of the entire application. However, applicant's provide no reasoning for this assertion, instead, Applicants merely state that no serious burden is created by the Examiner by running a simultaneous search of all of the polymorphisms in Table A. This is not found persuasive because the examiner provided a number of reasons as to why the search of each of the at least 56,566 distinct polymorphisms disclosed in table A is a burden to the examiner, including the fact that these sequences do not share a common structure, a reference against one would not anticipate or obviate the other, and a separate search for each polymorphism is required. Applicant states that no burden is created by "running a simultaneous computerized search of all of the polymorphisms in Table A." However, a burden is indeed created, on USPTO computer resources running the search, and indeed, on the examiner who would be required to wade through reams and reams of results in order to evaluate each polymorphism with regard to the prior art.

The requirement is still deemed proper and is therefore made FINAL.

***Further Restriction Requirement***

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4. Furthermore, applicant's amendment to the claims significantly changed the scope of the claims, and so, in light of this change a further restriction requirement is set forth. Before, the claims required a set of 100 polymorphisms on a computer readable medium (claim 18) or 25 non-identical molecules for the detection of polymorphism (claim 19). As amended, however, no such requirements of groups of 100 or 25 exist, as the claims merely recite "polymorphisms selected from the group consisting of..." The use of the word "polymorphisms" (in the plural) implies the selection of at least two polymorphisms. Thus, the claims, as amended, still encompass a multitude of inventions, wherein each invention is represented by individual pairs of polymorphisms recited in the claims. Applicant is required to select a set of TWO polymorphisms to which examination of claims 18 and 19 will be limited. This restriction requirement is further applied to the newly added claims which particularly recite individual polymorphisms. If these are elected, they will be examined. (That is, if the polymorphisms 466799 and 471736 are elected then claims 25, 26, 28, and 29 will be examined. If not, then these claims will be withdrawn as non-elected). It is noted that claims 24 and 27 are generic claims. These will be examined with the elected invention.

5. Prior to allowance, the claims will be required to be amended to remove any non-elected subject matter (as necessary). Applicant is advised that examination will be restricted to only the elected groups of polymorphisms and that this requirement should not to be construed as a species election.

6. These groups are each distinct inventions because each set of polymorphisms represents a set of unique nucleic acids. Each polymorphism itself sequence is patentably distinct because they are unrelated sequences, i.e. these sequences are unrelated because they do not share a

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common structure. A reference against one would not anticipate or obviate another, and thus for each particular set of polymorphisms a separate search of the patent and non-patent literature is required. These separate searches would impose undue burden on the examiner, and thus, restriction to the particular sets as required is proper. Should applicant traverse on the ground that the separate sets of polymorphisms are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other inventions.

7. A telephone call was made on 8/22/02 to Milan Vinola to inform her that a further restriction requirement would be set forth as well as a requirement for information.

8. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

10. This Office action has an attached requirement for information under 37 CFR 1.105. A complete reply to this Office action must include a complete reply to the attached requirement

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for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliet C. Einsmann whose telephone number is (703) 306-5824. The examiner can normally be reached on Monday through Friday, from 9:00 AM until 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 and (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



Juliet C. Einsmann  
Examiner  
Art Unit 1634

October 1, 2002



W. Gary Jones  
Supervisory Patent Examiner  
Technology Center 1600

***Requirement for Information under 37 CFR 1.105***

1. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.
2. In response to this requirement, please provide copies of each publication which any of the applicants authored or co-authored and which describe the disclosed subject matter of the claimed invention. In particular, please provide any information concerning the public disclosure of all or a portion of the SNP database for Arabidopsis described in the instant specification (see for example, Table A).
3. The enclosed posting to biotet.genome.arabidopsis USENET group by Chris Somerville refers to a datafile available at [www.arabidopsis.org](http://www.arabidopsis.org) as a set of five tab delimited files. The introduction page to this database indicates that the data were provided by Dr. Steve Rounsley, one of the inventors in this application (see web page print out therein). The examiner does not have access to this database, because she is not a member of an educational or non-profit organization. It is not clear from the usenet posting by Somerville or from the web page when the data were posted. Thus, applicant is requested to provide the following information:
  - a. The date of the initial availability of the dataset, as well as the dates of any updates to the dataset.
  - b. An explanation as to how the dataset provided on the website is related to the dataset provided in the instant specification. In particular, please indicate as to whether the dataset includes disclosure of the particular polymorphisms recited in the instantly

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pending claims, and if so, the date of availability of the disclosure of the particular polymorphisms recited in the claims.

c. A description of the data provided in the dataset (i.e. Are polymorphism locations provided within a context? Are oligonucleotides for the amplification and/or detection of the polymorphisms provided, etc).

4. For each elected polymorphism, please identify the location of the disclosure of the polymorphism within TABLE A.

5. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

6. The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

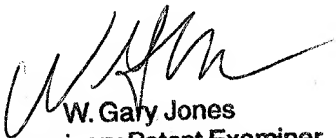
7. The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain



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an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete reply to the requirement for that item.

8. This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

  
W. Gary Jones  
Supervisory Patent Examiner  
Technology Center 1600  
Supervisory Patent Examiner  
Technology Center 1600